

## **REMARKS**

The Office Action dated March 14, 2008 has been received and carefully noted. The above amendments to the claims, and the following remarks, are submitted as a full and complete response thereto.

The Office Action indicated that claims 1-12, 16 and 17 have been allowed. Applicants wish to thank the Examiner for the allowance of these claims. However, claims 5-12, 16 and 17 are respectfully submitted for reconsideration.

The Office Action rejected claims 5-8 under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,643,287 to Callon et al. (Callon). Applicants respectfully submit that Callon fails to disclose or suggest all of the features recited in any of the above claims.

Claim 5, from which claims 6-12 depend, is directed to a method of distributing data across a network. A distribution device configured to distribute a set of packets of data across a set of equal-cost paths in the network is provided. Each packet in the set of packets are distributed across the set of equal-cost paths according to a weighted distribution.

Applicants respectfully submit that each of the above claims recites features that are neither disclosed nor suggested in Callon.

Callon is directed to forwarding encapsulated data packets on a network having multiple links between nodes. Callon describes attaching an encapsulating header to a packet to be transferred across the public network from a source node to a destination

node. A logical operation is performed to select one of a plurality of paths to forward the packet.

Regarding claim 5, Applicants respectfully submit that Callon fails to disclose or suggest “distributing each packet in the set of packets across the set of equal-cost paths according to a weighted distribution”, as recited in claim 5. The Office Action alleged that column 1, lines 62-64, column 2, lines 1-37 and lines 65-67, and column 3, lines 1-8 of Callon disclose a weighted distribution. Applicants respectfully disagree. The type of packet distribution performed by the router in Callon does not include a “weighted distribution.”

Column 1, lines 62-64 of Callon discloses an IP router that distributes packets by choosing equal-cost choices for next hops of a particular packet. The packet header is examined and the packet header contents are used in a hash function based on one or more of five different portions of packet header information.

Column 2, lines 1-37 describes the hash function as a way to perform computations by dividing a combination of bits by a constant. The mathematical manipulation of an IP address, for example, will add two 32-bit IP addresses together and then divide the sum by a constant which will always yield the same result when the same IP addresses are used. The hash function provides a way to mathematically alter IP header values so that numerical values may be matched to certain paths to ensure that certain packets always take the same route (see column 2, lines 12-16). Another example

may be to use the hash function so that packets belonging to a common flow are kept in order and are transmitted along a common path.

Applicants submit that the hash function described in Callon is not comparable to a weighted distribution, as recited in claim 5. The hash function performs mathematical computations on the numerical values of the packet header information to ensure the mathematical values obtained are matched by their respective values with certain paths. This allows packets to be routed via numerical ordering of the packets. The hash function does not perform any type of weighted distribution.

Referring to paragraph [0052] of the specification, an example of a weighted distribution is described in detail. Table entries are used to instruct a packet to be routed by a first path. Based on the number of table entries pointing to a particular path, if nine entries in the ECMP table are pointing to a first L3 table entry instructing a packet to be routed via a first path, and three ECMP table entries point to a second L3 table instructing the packet to be routed via a second path, then the nine entries will give the packet a three times more weighted chance to be routed via the first path than the second path (i.e., three vs. nine – nine is 3 times greater than 3). Referring to the last six lines of paragraph [0052] of the specification, “the packet is three times more likely to be distributed to the first path than to the second path...The traffic is said to be distributed across the equal-cost paths according to a weighted distribution.” Callon does not disclose increasing the chances of a packet being routed via an equal-cost path by two, three or any number of times greater or lesser than what was originally expected for the packet. Therefore,

Callon does not disclose or suggest “distributing each packet in the set of packets across the set of equal-cost paths according to a weighted distribution”, as recited in claim 5.

Therefore, independent claim 5 is allowable over Callon. Applicants submit that because claims 6-8 depend from claim 5, these claims are allowable for at least the same reasons as claim 5, as well as for the additional features recited in these dependent claims. Based at least on the above, Applicants respectfully submit that Callon fails to disclose or suggest all of the features recited in claims 5-8. Accordingly, withdrawal of the rejection under 35 U.S.C. 102(e) is respectfully requested.

The Office Action rejected claim 12 under 35 U.S.C. 103(a) as being obvious over Callon, in view of U.S. Patent No. 7,243,258 to Ichinohe et al. (Ichinohe). The Office Action took the position that Callon disclosed all of the features of these claims except updating a compilation is sets of instructions used to perform the weighted distribution based on a best-fit algorithm. The Office Action asserted that Ichinohe disclosed this feature. Applicants respectfully submit that the cited references, taken individually or in combination, fail to disclose or suggest all of the features recited in any of the above claims. Specifically, Applicants submit that Callon is deficient at least for the reasons discussed above, and Ichinohe fails to cure these deficiencies.

Ichinohe is directed to rerouting packets after failure. When a failure occurs and a route between one of a plurality of first ports cannot transmit and a plurality of networks is detected the plurality of ports is disabled. A second plurality of ports is then connected to the first ports through a plurality of networks. However, Applicants respectfully submit

that Ichinohe is silent with regards to distributing the packet across the set of equal-cost paths according to a weighted distribution as recited in claim 5. Thus, Ichinohe fails to cure the significant deficiencies of Callon.

Based at least on the above, Applicants respectfully submit that the cited references fail to disclose or suggest all of the features recited in claim 12. Accordingly, withdrawal of the rejection under 35 U.S.C. 103(a) is respectfully requested.

The Office Action rejected claims 16 and 17 under 35 U.S.C. 103(a) as being obvious over Ichinohe, in view of Callon. The Office Action took the position that Ichinohe disclosed all of the features of these claims except interface means operably connected to equal-cost paths according to a weighted distribution. The Office Action asserted that Callon disclosed this feature. Applicants respectfully submit that the cited references, taken individually or in combination, fail to disclose or suggest all of the features recited in claims 16 and 17. More specifically, Applicant submits that Callon fails to cure the admitted deficiencies of Ichinohe.

Claim 16, from which claim 17 depends, is directed to a device for distributing Internet protocol packets across a network. A set of interface means interfaces the device with the network. A distribution means distributes a set of packets entering the device through a first interface means in the set of interface means. Packets in the set of packets are distributed across all interface means in the set of interface means operably connected to equal-cost paths according to a weighted distribution.

As discussed above, the Office Action relied on Callon to disclose an interface means operably connected to equal-cost paths according to a weighted distribution. However, Applicants submit, as discussed above in the rejection of claim 5, that Callon is silent with regards to a “weighted distribution.” Thus, Callon fails to cure the admitted deficiencies of Ichinohe. Applicants further submit that because claim 17 depends from claim 16, claim 17 is allowable at least for the same reasons as claim 16, as well as for the additional features recited in claim 17.

Based at least on the above, Applicants respectfully submit that the cited references fail to disclose or suggest all of the features recited in claims 16 and 17. Accordingly, withdrawal of the rejection under 35 U.S.C. 103(a) is respectfully requested.

The Office Action objected to claims 9-11 for being dependent from a rejected base claim. Applicants gratefully acknowledge the indication that these claims would be allowable if rewritten into independent form. However, Applicants respectfully submit that because these claims depend from claim 5, claims 9-11 are allowable in their present form at least for the same reasons discussed above regarding claim 5. Accordingly, withdrawal of the objection to claims 9-11 is respectfully requested.

Applicants respectfully submit that each of claims 1-17 is in condition for allowance. Accordingly, it is respectfully requested that each of claims 1-17 be allowed, and this application passed to issue.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the applicants' undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, the applicants respectfully petition for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,



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